

FREESTANDING WORKSTATION

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a freestanding workstation, and in particular to a highly adjustable and easily assembled workstation.

[0002] Freestanding workstations are used in a wide variety of office environments, and typically require both easy adjustment and reconfiguration. These workstations typically include a desk assembly having a worksurface, and a hutch assembly supported above the worksurface and including a storage bin for storing office-associated materials and equipment therein.

[0003] Heretofore, the desk assemblies associated with these workstations have required specialized parts usable only in a desk and/or hutch of a particular size. As a result, desk assemblies of varying sizes require completely different components, thereby adding to the manufacturing cost of each of these units by requiring specialized manufacturing equipment. Further, components constructed for a desk assembly of a particular size that are not compatible with desk assemblies of different sizes add to costs associated with material handling and logistics. These workstations have also been difficult to assemble, may require specialized tools, and at times specialized knowledgeable personnel.

[0004] A workstation is desired that incorporates components usable between workstations of varying sizes and configurations, while simultaneously being quick and easy to assemble and disassemble without the requirement of specialized equipment, tools and/or personnel.

SUMMARY OF THE INVENTION

[0005] One aspect of the present invention is to provide a privacy screen for use within a desk assembly having a worksurface and an open span located below the worksurface, the privacy screen including a first member having a generally planar first portion, a first flange extending longitudinally along the first planar portion, and a first end adapted to be secured to a desk assembly within an open span located below a worksurface of the desk assembly. The privacy screen also includes a second member having a generally planar second portion, a second flange extending longitudinally along the second planar portion and configured to telescopingly receive the first flange of the first member therein such that the planar second portion is substantially proximate the planar first portion, and a second end adapted to be secured to the desk assembly within the span located below the worksurface of the desk assembly. The first member and the second member is telescopingly adjustable with respect to one another, thereby allowing adjustment of an overall length of the privacy screen extending between the first end and the second end.

[0006] Another aspect of the present invention is to provide a desk assembly that includes a worksurface, a first supporting member supporting the worksurface, and a second supporting member supporting a worksurface, wherein the first supporting member and the second supporting member cooperate to define a span therebetween. The desk assembly also includes a first privacy screen assembly including a first member having a generally planar first portion, a first flange extending longitudinally along the planar first portion, and a first end adapted to be secured to the first supporting member. The privacy screen also includes a second member having a

generally planar second portion, a second flange extending longitudinally along the planar second portion and telescopingly received within the first flange of the first member such that the planar second portion is substantially proximate the planar first portion, and a second end secured to the second support member, such that the first member and the second member are telescopingly adjusted with respect to one another to extend across an entire length of the span.

[0007] Yet another aspect of the present invention is to provide a hutch assembly that includes a storage bin, and at least one support member adapted to support the storage bin above a worksurface, thereby defining an open span between the storage bin and the worksurface. The hutch assembly also includes an upper track member located below the storage bin and including a first pocket defining a first depth, and a lower track member adapted to be located above the worksurface and including a second pocket defining a second depth that is less than the first depth. The hutch assembly further includes a substantially planar tackboard having an upper edge and a lower edge wherein the tackboard is located within the upper and lower tracks by inserting the upper edge of the tackboard into the first pocket of the upper track, positioning the lower edge of the tackboard over the second pocket of the lower track, and lowering the lower edge of the tackboard into the second pocket.

[0008] Another aspect of the present invention is to provide a wire routing assembly that includes a housing member including a plurality of laterally-extending, spaced apart, flexibly resilient fingers forming at least a part of a rearwall and a first sidewall, and a longitudinally-extending second wall opposed across the rearwall from the first sidewall, wherein the first sidewall includes a first portion of a first coupler, and the second

sidewall includes a first portion of a second coupler. The wire routing assembly also includes a cover member that includes a body portion having a longitudinally-extending first edge and a longitudinally-extending second edge opposed across the body portion from the first edge, a second portion of the first coupler extending along the first edge of the body portion and adapted to couple with the first portion of the first coupler, and a second portion of the second coupler extending along the second edge of the body portion and adapted to couple with the first portion of the second coupler. The cover member is connected with the housing member by flexing the fingers of the housing member, thereby allowing coupling of the first and second portions of the coupler, and coupling the first and second portions of the second coupler.

[0009] Still yet another aspect of the present invention is to provide a hutch assembly that includes a storage portion, and at least one support member adapted to support the storage portion above a worksurface, wherein the at least one support member has an inner surface and a channel extending into and longitudinally along the inner surface. The hutch assembly also includes a wire routing assembly that includes a housing including a plurality of laterally-extending, spaced apart, flexibly resilient fingers forming at least a part of a rearwall and a sidewall, and a longitudinally-extending second wall opposed across the rear from the first sidewall, wherein the first sidewall includes a first portion of a first coupler, and the second sidewall includes a first portion of a second coupler, and wherein the housing is located within the channel of the at least one support member. The wire routing assembly also includes a cover member including a body portion having a longitudinally-extending first edge and a longitudinally-extending second edge opposed across the body portion from the first edge, a second portion of

the first coupler extending along the first edge and adapted to couple with the first portion of the first coupler, and a second portion of the second coupler extending along the second edge and adapted to couple with the first portion of the second coupler. The cover member is connected with the housing member by flexing the fingers of the housing member, thereby allowing coupling of the first and second portions of the first coupler and coupling of the first and second portions of the second coupler.

[0010] Another aspect of the present invention is to provide a hutch assembly that includes a storage portion, and at least one support member adapted to support the storage portion above a worksurface, wherein the at least one support member includes an inner surface and a channel extending into and longitudinally along the inner surface, and wherein the channel includes a pair of opposed walls each having an inwardly-facing surface. The storage assembly also includes a cover member including a body portion and a pair of sidewalls extending longitudinally along and substantially orthogonally from the body portion, wherein each side wall of the cover member has an outwardly-facing surface. The cover member is coupled with the at least one support member by positioning the cover member within the channel such that the outwardly-facing surface of each wall of the cover member frictionally engages the inner-facing surface of the respective wall of the channel. The cover member cooperates with the channel to form a wire passageway therebetween.

[0011] The present inventive freestanding workstation has comparatively reduced manufacturing costs, includes an uncomplicated design, is economical to manufacture, can be easily and quickly assembled by even unskilled personnel and is particularly well adapted for the proposed use.

[0012] These and other advantages of the invention will be further understood and appreciated by those skilled in the art by reference to the following written specification, claims and appended drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] Fig. 1 is a perspective view of a freestanding workstation embodying the present invention;

[0014] Fig. 2 is an exploded perspective view of the workstation;

[0015] Fig. 3 is an exploded view of a support of the workstation;

[0016] Fig. 4 is an exploded perspective view of a privacy screen of the workstation;

[0017] Fig. 5 is a cross-sectional side view of the privacy screen;

[0018] Fig. 6 is a side view of a privacy screen assembled with a supporting member and a worksurface;

[0019] Fig. 7A is an exploded perspective view of a rear wall and a tackboard of the workstation;

[0020] Fig. 7B is a perspective view of the tackboard partially assembled with the rear wall;

[0021] Fig. 7C is a perspective view of the tackboard partially assembled with the rear wall;

[0022] Fig. 7D is a perspective view of the tackboard assembled with the rear wall;

[0023] Fig. 8 is an exploded perspective view of a wire routing assembly of the workstation;

[0024] Fig. 9 is an end view of the wire routing assembly;

[0025] Fig. 10 is an enlarged view of the rear wall, a support member and a worksurface of the workstation with a cover of the wire routing assembly partially cut-away;

[0026] Fig. 11 is a perspective view of an alternative embodiment of the wire cover of the workstation; and

[0027] Fig. 12 is an enlarged view of the rear wall, the support member and the worksurface of the workstation, and the alternative embodiment of the wire cover.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0028] For purposes of description herein, the terms "upper," "lower," "right," "left," "rear," "front," "vertical," "horizontal," and derivatives thereof shall relate to the invention as oriented in Figs. 1 and 2. However, it is to be understood that the invention may assume various alternative orientations and step sequences, except where expressly specified to the contrary. It is also to be understood that the specific devices and processes illustrated in the attached drawings, and described in the following specification are exemplary embodiments of the inventive concepts defined in the appended claims. Hence, specific dimensions and other physical characteristics relating to the embodiments disclosed herein are not to be considered as limiting, unless the claims expressly state otherwise.

[0029] The reference numeral 10 (Figs. 1 and 2) generally designates a freestanding workstation embodying the present invention and including a desk assembly 12 and a hutch assembly 14 supported over the desk assembly 12. The desk assembly 12 includes a plurality of supporting members 16, which in the illustrated example, includes a drawer file 18, a pair of triangularly-shaped support legs 19 and a supporting wall 20. The desk assembly 12 also includes a two-piece, L-shaped worksurface 22 connected

with the supporting members 16 via mounting hardware (not shown). The desk assembly 12 further includes a privacy screen 26 that extends between one of the drawer files 18 and the supporting wall 20. The hutch assembly 14 includes an overhead storage bin 28 as defined by a bottom wall 30, a top wall 32, end walls 34 and a rear wall 36, which cooperate to define an interior space 37. The interior space 37 is subdivided into storage compartments 40, 42, 44 by a pair of interior walls 46. The storage compartments 40 and 44 are enclosed by a pair of doors 48 hingedly attached to the associated end walls 34. The hutch assembly 14 further includes a rear wall 50 and a tackboard 52.

[0030] Each leg 200 (Fig. 3) includes a triangularly-shaped housing 202 having a pair of mutually-perpendicular side walls 204 and a pair of inwardly-extending end walls 206. Each side wall 204 includes an inwardly-extending C-shaped channel 208. Each channel 208 includes an outer wall 209 and an inner wall 211, that each include a plurality of apertures 213 spaced therealong. Each end wall 204 includes a plurality of mounting apertures 210 adapted to receive mounting hardware, such as screws (not shown) therein, for mounting the legs 200 to an underside of the worksurface 22, and an U-shaped notch 212 adapted to receive electrical and communication lines therethrough. Each leg 200 further includes a cover member 214 having a body portion 216 and a pair of mounting flanges 218 opposed across the body portion 216 and extending longitudinally therealong. Each flange 218 extends outwardly from the body portion 216 at an angle such that the flanges 216 abut the channels 208, and includes a plurality of apertures 217 spaced along the length of each flange 216 and adapted to receive mounting screws 219 therein. Each cover member 214 includes a

rectangularly-shaped notch 220 located at each end of the cover member and positioned so as to be aligned with the notch 212 of the housing 202. In assembly, the cover member 214 is positioned with the housing 202 such that the flanges 218 of the cover member 214 abut the channels 208 of the housing 202, and the notches 220 of the cover member 214 are aligned with the notches 212 of the housing 202. The screws 219 are threaded into the apertures 209 and 217, thereby connecting the cover member 214 with the housing 202. A privacy screen 26 extends between and is coupled to the legs 200.

[0031] The privacy screen 26 (Fig. 4) includes first member 54 and a second member 56. The first member 54 includes a generally planar body portion 58 and a longitudinally-extending C-shaped channel 60. The channel 60 includes a bottom wall 62 extending orthogonally outward from the body portion 58, and an inner wall 64 extending orthogonally upward from the bottom wall 62. The first member 54 also includes a longitudinally-extending upper flange 66 extending orthogonally outward from the body portion 58. The upper flange 66 includes a notch 68 located at an end of the upper flange 66 and adapted to receive communication and electrical lines therethrough, depending upon the configuration of the workstation 100. The first member 54 further includes an end wall 70 extending orthogonally outward from the body portion 58. The upper flange 66 and the end wall 70 of the first member 54 each include a plurality of apertures 72 adapted to receive mounting hardware therein to secure the privacy screen 26 to the desk assembly 12, as described below. The second member 56 of the privacy screen 26 includes a substantially planar body portion 74, a bottom channel 76, an upper flange 78 and an end wall 80. The channel 76

includes a bottom wall 82 extending orthogonally outward from the body portion 74, an inner wall 84 extending orthogonally upward from the bottom wall 82, and an inner lip 86 extending from the inner wall 84 and inwardly towards the body portion 74. The upper flange 78 and the end wall 80 each extend orthogonally outward from the body portion 74 and include a plurality of apertures 88 extending therethrough for receiving mounting hardware for securing the privacy screen 26 to the desk assembly 12, as described below. The upper flange 78 of the second member 56 includes a notch 90 located near an end thereof, and adapted to receive communication and electrical lines, depending upon the configuration of the workstation 10.

[0032] In assembly, as best illustrated in Fig. 5, the first member 54 and the second member 56 are telescoping connected to one another by inserting the channel 60 of the first member 54 into the channel 76 of the second member 56. Specifically, the inner wall 64 of the channel 60 is slidably received within a gap 92 as formed between the lip 86 and the inner wall 84 of the channel 76. Once assembled, the body portion 58 of the first member 54 is located proximate the body portion 74 of the second member 56, while the upper flange 66 of the first member 54 tracks below the upper flange 78 of the second member 56.

[0033] The privacy screen 26 (Fig. 6) is assembled with the desk assembly 12 by a plurality of mechanical fasteners such as screws 94 that extend through the apertures 72 and 88 and are received within co-aligned apertures (not shown) located within one of the drawer files 18 and the worksurface 22. Additional mounting apertures 96 may be drilled through the body portions 58, 74 of the first and second members 54, 56 of

the privacy screen 26, depending upon the configuration of the workstation 10, so as to receive additional mounting hardware therein.

[0034] The rearwall 50 (Fig. 7A) of the hutch assembly 14 includes a planar body portion 98, a C-shaped upper track member 100, and a C-shaped lower track member 102, each integrally formed with the body portion 98. The upper track member 100 includes a top wall 104 extending orthogonally outward from the body portion 98, and a side wall 106 extending orthogonally downward from the top wall 104 to define a total depth of the upper track member. The lower track member 102 includes a bottom wall 108 extending orthogonally outward from the body portion 98, and a sidewall 110 extending orthogonally upwardly from the bottom wall 108 to define a total for the lower track member 102. The tackboard 52 of the hutch assembly 14 is substantially planar, and includes a top edge 112 and a bottom edge 114. The tackboard 52 is constructed of a material such as cork or similar synthetic material capable of receiving stick-pins and the like therein. The tackboard may also include a whiteboard like surface across a portion thereof.

[0035] As best illustrated in Figs. 7B-7D, the tackboard 52 is assembled with the rearwall 50 by placing the top edge 112 of the tackboard 52 within the upper track member 100, and then pivoting the lower edge 114 of the tackboard 52 towards the body portion 98 of the rearwall 50 in a direction as indicated by directional arrow 116. Once the bottom edge 114 of the tackboard 52 is located above the lower track member 102, the tackboard 52 is moved in a downward direction as indicated by directional arrow 118 until the bottom edge 114 of the tackboard 52 is located within the lower track member 102. The tackboard 52 is thereby slidably secured within the upper track

member 100 and the lower track member 102 within a direction as indicated by directional arrow 119, as the total depth of the lower track member 102 is less than the total depth of the upper track member 100.

[0036] The rearwall 50 further includes a pair of end flanges 120 each having a plurality of apertures 122 that receive mounting hardware such as screws 124 therein for securing the rearwall 50 to the end walls 34 of the hutch assembly 14. A plurality of apertures 105 extend through the top wall 104 of the upper track member 100 and the bottom wall 108 of the lower track member 102 for securing the rearwall 50 to the bottom wall 30 of the storage bin 28 and the worksurface 22, respectively. The rearwall 50 further includes an aperture 128 located proximate the lower track member 102 and the end flanges 120. Each aperture 128 is adapted to receive electrical and communication lines therethrough as typically associated with an office-type setting.

[0037] The hutch assembly 14 further includes a pair of wire routing assemblies 130 (Figs. 8 and 9) each received within a longitudinally-extending channel 132 that extends inwardly into an inner surface 134 of each end wall 34, and that each include an end wall 133 having an aperture 135 extending therethrough. Each wire routing assembly 130 includes a housing member 136 and a cover member 138 that cooperate to form a passage 140. The housing member 136 includes a rearwall 142 having a longitudinally-extending solid wall 144 and a plurality of spaced apart, flexibly resilient fingers 146 extending laterally from the solid wall 144. The fingers 146 include a first portion 148 that cooperate with the solid wall 144 to form the rear wall 142, and a second portion 150 that extends substantially perpendicular to the first portion 148, and that cooperate with one another to form a first sidewall 152. The end of each finger 146 includes a

longitudinally-extending channel 154, a tab 156, and a inwardly-extending support arm 158. The housing member 136 further includes a longitudinally-extending second side wall 160 having a longitudinally-extending channel 162, a longitudinally-extending tab 164 and an inwardly-extending support arm 166. The cover member 138 includes an arcuately-shaped body portion 168 having a longitudinally-extending first edge 170 and a longitudinally-extending second edge 172 opposed across the body portion 168. The first edge 170 includes a longitudinally-extending channel 174 and a longitudinally-extending tab 176, while the second edge 172 includes a longitudinally-extending channel 178 and a longitudinally-extending tab 180.

[0038] In assembly, the housing member 136 (Fig. 10) of each wire routing assembly 130 is placed within the channel 132 of an associated end wall 134 and is secured therein via a fastener such as double-sided tape, a mechanical fastener, or the like. The cover member 138 is then connected with the housing member 136 by pressing the cover member 138 towards the housing member 136 in a direction as indicated and represented by directional 182, thereby causing the fingers 146 of the housing member 136 to flex as tab 176 guides over tab 156, and as tab 180 guides over tab 164, thereby snappably connecting the cover member 138 with the housing member 136. Specifically, the snap connection between the cover member 138 and the housing 136 is created by tabs 156, 164, 176, 180 being received within channels 174, 178, 154, 162, respectively, and thereby conceals wires and communication lines routed within the internal passageway 140. The cover members 138 further conceal the fasteners 136 that extend through the apertures 135 of the end walls 133 and that are received

within mating apertures located within the worksurfaces 22, thereby securing the hutch assembly 14 with the desk assembly 12.

[0039] In an alternative embodiment, a single-piece wire cover 230 (Figs. 11 and 12) includes a first end 232 and a second end 234, a planar body portion 236, and a pair of flanges 238 extending longitudinally along and substantially perpendicular to the body portion 236. Each end 232, 234 includes a rectangularly-shaped notch 240 for receiving electrical and communication lines therethrough.

[0040] In assembly, each cover 230 is placed within an associated channel 132 such that the outer surfaces of each flange 238 frictionally engage the sidewalls of the channel 132, thereby holding the cover 230 within the channel 132.

[0041] In another alternative embodiment, a rearwall 50a is constructed to provide a gap 240 between the bottom of the rearwall 50a and the worksurface 12 when the rearwall 50a is positioned within the workstation 10. Since the rearwall 50a is similar to the previously-described rearwall 50, similar parts appearing in Figs. 7A-7D and Fig. 13 are represented by the same, corresponding reference numeral, except for the suffix "a" in the numerals of the latter. In the illustrated example, the gap 240 located between the bottom of the wall 50a and the worksurface 12 is covered by a strip member 242 (Fig. 14). The strip member 242 includes a base wall 244, a sidewall 246 extending orthogonally upward from the base wall 244, a top wall 248 extending orthogonally inwardly from the sidewall 246 approximately half the distance of the base wall 244, and an inner wall 250 extending orthogonally downward from the top wall 248 approximately half the distance of the sidewall 246. The walls 244, 246 248, 250 cooperate to form a longitudinally-extending gap 251 therebetween. The strip member 242 further includes

an arcuately-shaped cover wall 252 extending downwardly from the base wall 244 from a location spaced between an inner edge 254 of the base wall 244 and the side wall 246. The strip member 242 is preferably extruded from a flexibly-resilient material.

[0042] In assembly, the rearwall 50a is assembled within the workstation 10 as previously described. The gap 240 is then covered from view by the strip member 242. Specifically, the strip member 242 is fitted onto the lower track member 102a by flexing the strip member 242 such that the lower track member 102a is located within the gap 251 and the cover wall 252 extends below the lower track member 102a and preferably contacts the worksurface 12. Communication and electrical lines can be routed anywhere along the length of the gap 240, thereby providing significant versatility and adaptability to the office environment and specifically to the workstation 10.

[0043] The present inventive freestanding workstation has comparatively reduced manufacturing costs, includes an uncomplicated design, is economical to manufacture, can be easily and quickly assembled by even unskilled personnel and is particularly well adapted for the proposed use.

[0044] In the foregoing description, it will be readily appreciated by those skilled in the art that modifications may be made to the invention without departing from the concepts disclosed herein. Such modifications are to be considered as included in the following claims, unless these claims by their language expressly state otherwise.